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the LINCOLN *National Forest*

WORKS FOR YOU!

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SOUTHWESTERN REGION

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MULTIPLE USE MANAGEMENT

of your

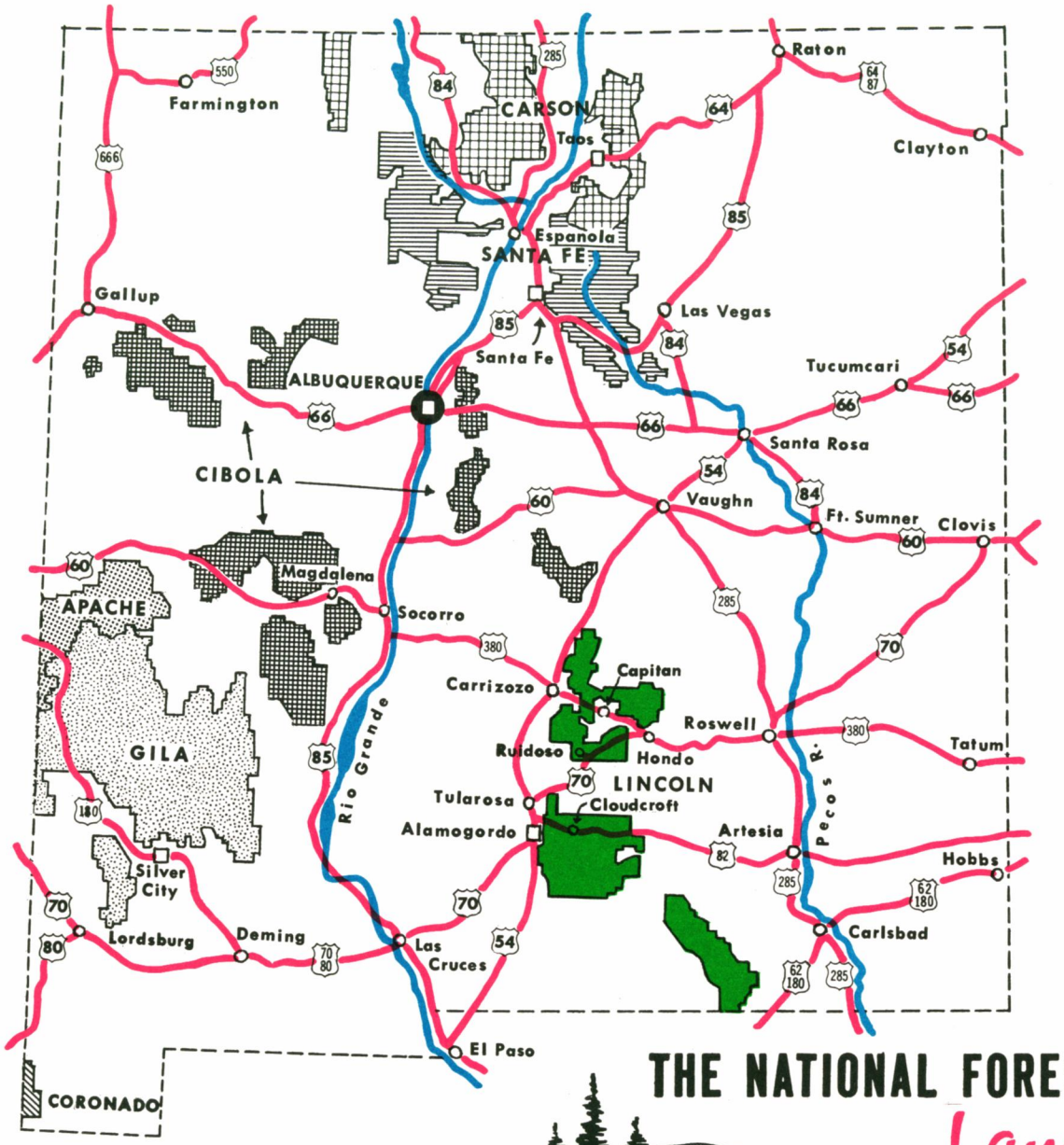
LINCOLN
National Forest

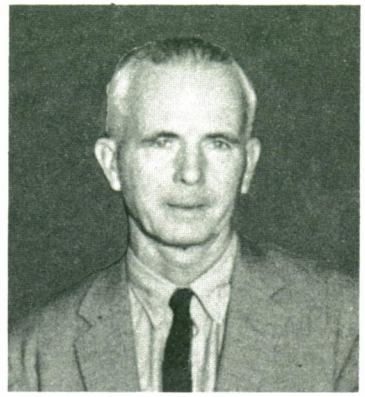
provides

- **RECREATION**
- **WATER**
- **WOOD**
- **FORAGE**
- **WILDLIFE**

for maximum overall public benefit!

NATIONAL FORESTS IN NEW MEXICO





The Lincoln National Forest is known far and wide as the birthplace of the world-famous Smokey Bear who now resides at the National Zoo in Washington, D. C. Since Smokey left his home in June of 1950, many changes have taken place on the Forest. This brochure tells by words and pictures how the Lincoln National Forest is working for you and other Americans.

Economic development in Southeastern New Mexico is closely tied in many ways to the development of Lincoln National Forest resources. Rain and snow produce water which is stored on the Lincoln for domestic and irrigation uses in downstream communities. Timber harvested from the Lincoln supplies local markets, while cattle grow fat on its ranges and local residents and tourists flock to the National Forest for outdoor recreation in winter and summer. You, as a stockholder, may be assured that this National Forest will do its part by continuing to make these contributions to the public welfare.

If you should have any questions about our programs or objectives, please feel free to call on me or any of the Forest Rangers. Your continued understanding and support will be appreciated.

R E Rea
Forest Supervisor

THE NATIONAL FORESTS

Lands of Many Uses

Unique lodge at Sierra Blanca Recreation Area.

Playing in the crystal-clear water above Sitting Bull Falls.

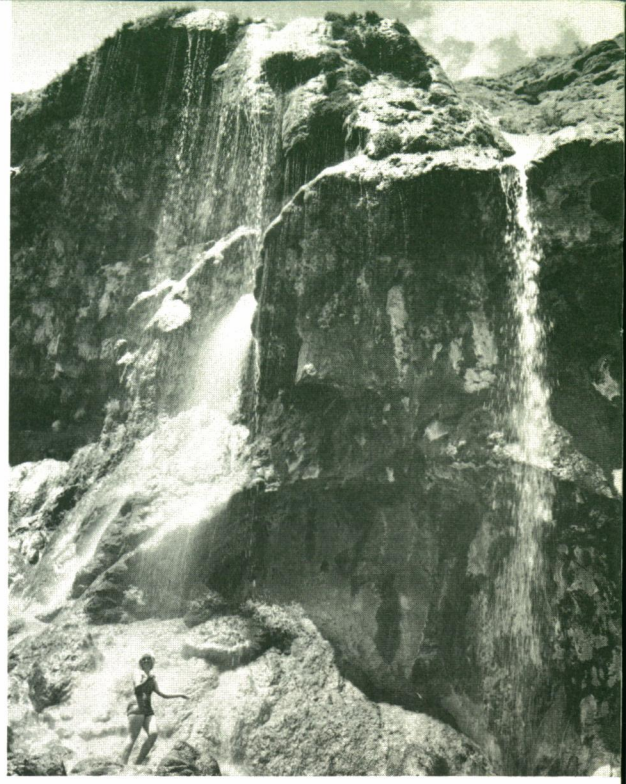
OUTDOOR RECREATION

Outdoor recreation is the fastest growing use on the Lincoln National Forest and is one that is having a favorable impact on the economy of communities in and adjacent to the Forest. In the past decade, recreation visits have increased by one million — from 298,030 in 1954 to 1,300,000 in 1963. The rise in visits has been proportional to the rapid expansion of Alamogordo, El Paso, and the Pecos Valley.

Many new facilities have been built and opened to take care of this influx. Most recent is the development of Sierra Blanca Winter Sports Area near Ruidoso. The $2,000,000 operation runs the year 'round carrying skiers up the slopes in the winter and sightseers in the summer. Sleepy Grass Picnic Ground near Cloudcroft is a newly completed area with 94 tables and fireplaces.

As the chart shows, recreation visits are going up at an ever increasing rate. By 1973, almost 2 million visits are anticipated. To meet these demands, the "Development Program for the National Forests" is in operation. The next planned recreation site is the 64-unit South Fork Campground near Ruidoso. Within the next 10 years, it is planned to install 48 new camp and picnic grounds on the Lincoln.

To keep pace with changing public needs, studies of what recreation facilities people want and will use are being planned for the Cloudcroft Experimental Forest northeast of Cloudcroft. Recreation research, which is receiving increasing emphasis in the Forest Service Research Program, will design family units and recreational facilities according to various standards. By surveys, questionnaires and observation, researchers will measure public acceptance of design ideas. Another important aspect will be a study of the effects of recreational development and use on the vegetative cover.



Sitting Bull Falls — a mountain playground near Carlsbad.

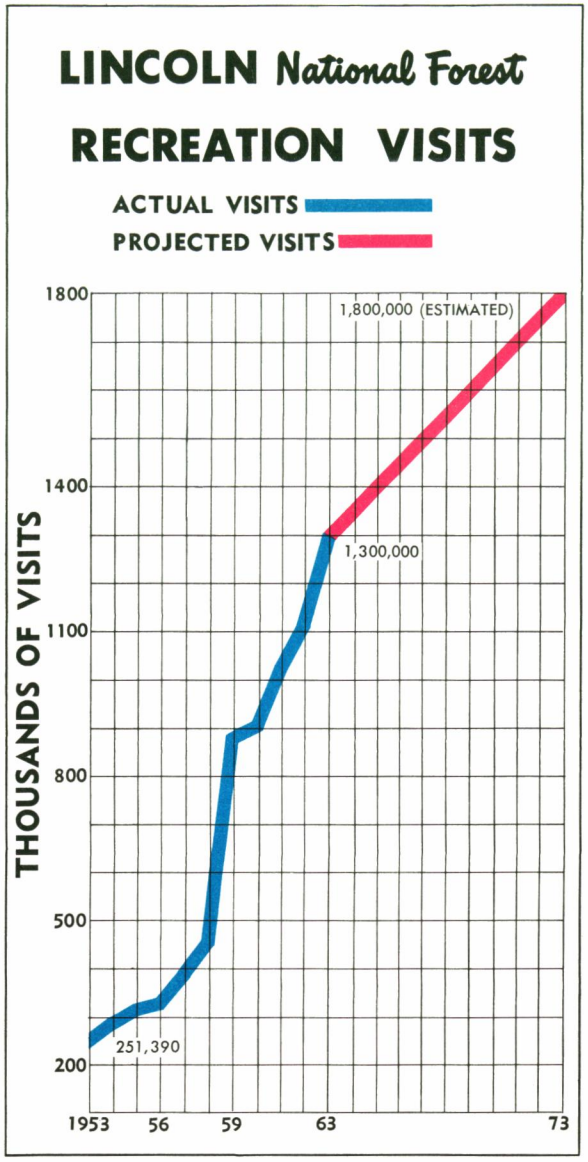
Sierra Blanca's gondola cars operate winter and summer.

Riders enjoy the rugged Guadalupe Mountains.

Boy Scouts setting up camp on the Lincoln.

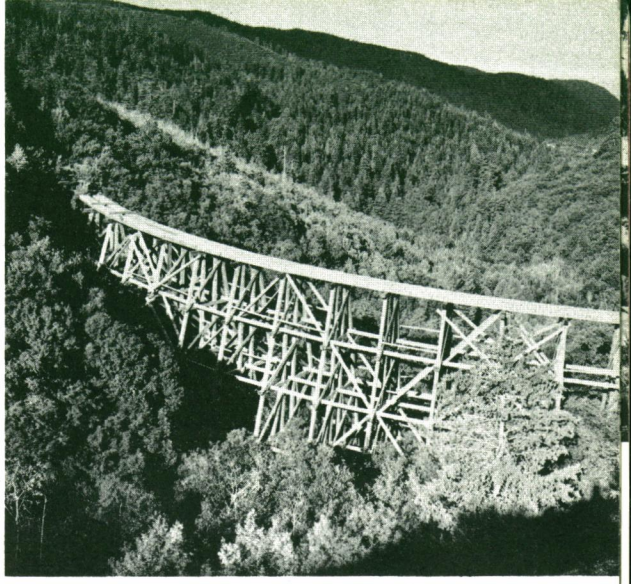
LINCOLN National Forest

RECREATION VISITS



THE NATIONAL FORESTS

America's Playgrounds



Historic logging railroad trestle below Cloudcroft.

Campgrounds require constant cleanup and maintenance.

SMOKEY...from cub to Nationwide Forest Fire Prevention Symbol

Little Smokey has his burned paws bandaged.

Smokey arrives in Washington, D. C.

Be sure to visit Smokey Bear Museum in Capitan — admission free.

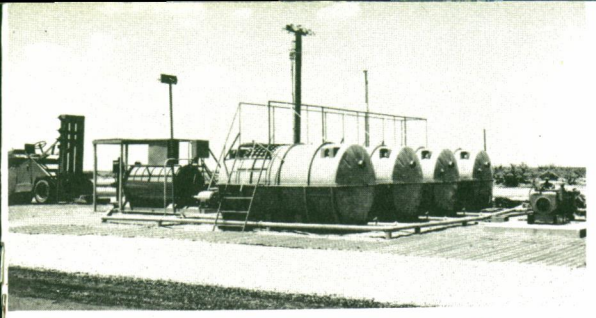
A badly burned bear cub was discovered clinging to a tree during the Capitan Gap fire of 1950. Firefighters and personnel from the New Mexico Department of Game and Fish took him and cared for him until his burns healed. He was a survivor of the 13,000 acre conflagration started by man's carelessness.

The bear cub from the Lincoln National Forest was dubbed "Smokey," the living image of the Forest Fire Prevention Poster Bear, and flown to Washington, D. C., to a new home at the National Zoo. Each year he's visited by thousands of people from all over the world. Millions more hear his voice on radio and television or see his picture in their local newspapers as he speaks out against man's carelessness and seeks your help in preventing forest fires.

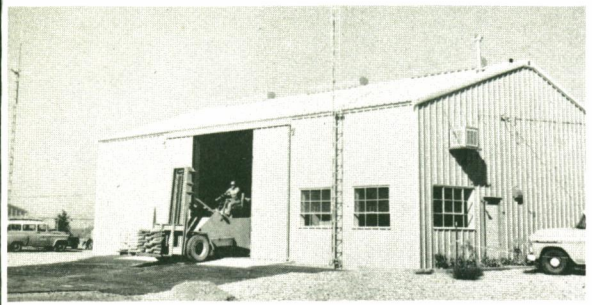
Smokey is to many people a picture on a poster, but to those who remember the disastrous fire and today see the scars from man's careless act of throwing a cigarette or match from a car window, Smokey is real. At Capitan, they've dedicated a museum to Smokey; they've changed the name of the ranger district to Smokey Bear Ranger District, and they've called the fire lookout tower which first spotted the blaze, Smokey Bear Lookout.

As you see Smokey wherever his picture may be, the folks of Capitan hope you and every American will take to heart the lesson of what a moment of carelessness can do to your National Forests. His four rules are: 1—Crush out your smokes, 2 — Break your matches in two, 3 — Drown your campfires, and 4 — Be careful with every fire.

Smokey stands to greet Goldie, his 1962 bride, upon arrival at National Zoo.



Storage tanks for fire retardant at Alamogordo airport.



Bentonite clay being hauled to mixing plant at the airport.

A mechanical tree planter helps to restore the forest on a burned area.

FIRE

Weather conditions indigenous to Southeastern New Mexico have a built-in design for disaster which can cause the Lincoln National Forest to be a torch, primed and ready to explode. Hot, dry winds blow continuously in the dry semi-desert Pecos River Valley and the Tularosa Basin. Jet streams passing through the upper atmosphere draw the desert air up the mountain slopes, sucking up moisture from the vegetation. Then all that's needed is the spark.

Jet streams play other tricks. High winds associated with the jet streams occasionally dip down to the tops of the Sacramento and Capitan mountains. Just such a phenomenon happened in April 1953. The spark was provided by human carelessness. The strong winds fanned it into the Circle Cross conflagration which raced 14 miles and devoured over 25,000 acres of high-country forest in four hours.

During the past five years, man's careless acts have caused only 30 percent of the Lincoln's fires, but these man-caused blazes have done 60 percent of the fire damage to nearly 1500 acres. The picture looks like this:

PAST 5 YEARS FIRE EXPERIENCE — LINCOLN NATIONAL FOREST

	1963	1962	1961	1960	1959	TOTAL
Total number of fires	52	60	86	90	95	383
Number of man-caused fires	16	13	18	31	38	116
Total acreage burned	345	1914	48	140	87	2533
Acreage burned by man-caused fires . .	337	929	9	111	83	1467

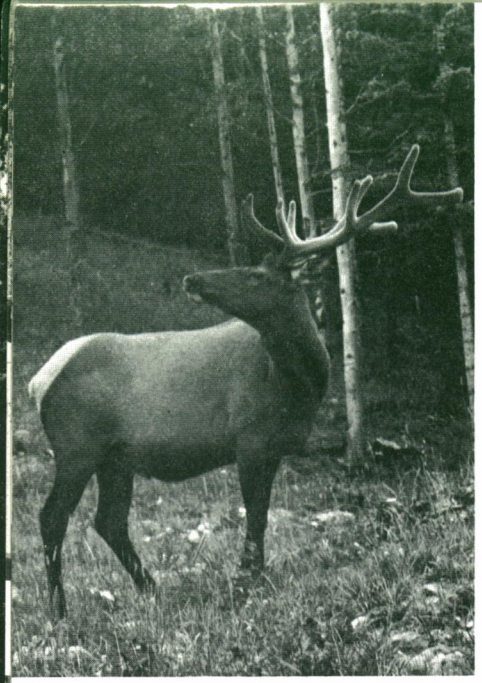
Fire prevention is as much a part of fire control as suppression. The average number of man-caused fires has been decreasing as the result of Smokey Bear's program, but the job is by no means complete. Local newspapers, radio and television stations, ranchers, recreationists, timbermen, and others have cooperated wholeheartedly in the Lincoln's annual fire prevention campaigns.

To fight wildfire when it occurs, the Lincoln keeps a standby force on the alert during the danger periods. They "hit 'em fast and keep 'em small." In addition, the Mescalero Indian Fire Fighting Crews (The famed "Red Hats") and military crews from Fort Bliss, Texas, and Holloman Air Force Base, New Mexico, are key fire-fighting forces for the Lincoln and other National Forests in New Mexico.

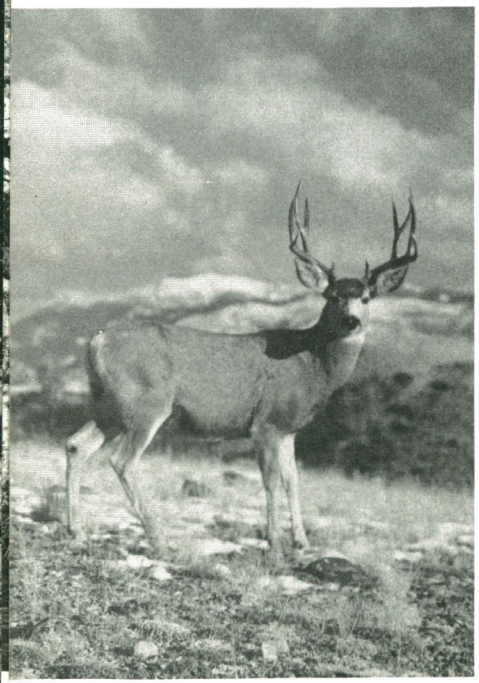
The Lincoln's "ready line" at the Alamogordo Municipal Airport is constantly prepared. Mixing facilities can turn 7,000 gallons of water and bentonite clay into slurry (fire retardant) at one time. That's enough to load aerial tankers at the rate of one every five minutes. The Lincoln's fire base also dispatches slurry attack forces to other National Forests when needed.

Protection of your National Forest is a continuing job. In the next decade the Lincoln will:

1. Construct 30 miles of fire breaks.
2. Remove slash from along 43 miles of high-hazard roads.
3. Remove snags on 8,000 acres.
4. Construct 107 Helispots.
5. Intensify fire fighting training.
6. Step up the use of fire prevention techniques and public education.



Majestic bull elk in the Guadalupe Mountains.



A perfect specimen of the Rocky Mountain mule deer.

WILDLIFE

Water, food, and cover are the ingredients that make up "wildlife habitat." These factors must be available in the right amount and the right kind. Management of the habitat is the responsibility of the Forest Service on all National Forest lands. A home must be maintained for the mule deer, black bear, turkey, elk, antelope, and white-tailed deer, as well as the non-game animals and birds living on the Lincoln.

New Mexico's hunting and fishing laws regulate the harvest of game and fish. Thus, the New Mexico Department of Game and Fish and the Forest Service are partners in the wildlife enterprise. Together they study game populations and make recommendations for bag limits with the objective of maintaining a balance between animal numbers and food supplies. Habitat improvements such as stream trash catchers, reseeding of burned areas and logging roads with browse or shrub plants, and creating of wildlife openings in dense forest stands, are carried out by the Forest Service in cooperation with the State.

In 1963, more than 96,000 sportsmen hunted or fished on the Lincoln National Forest. Many came from the eastern plains of New Mexico and western and central Texas, and the money spent by these folks provided a major boost to the economy of the local mountain communities.

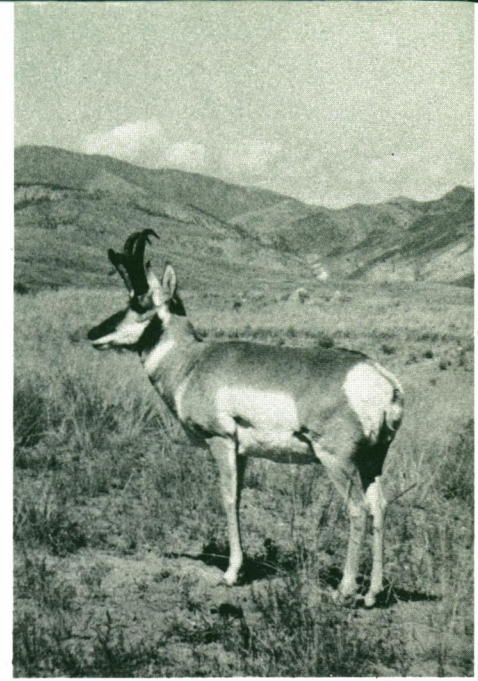
The Lincoln is one of the best big-game hunting areas in the State and for the past five years the annual harvest of deer from it has averaged 11,500 animals.

In recent years, more than 260 stream improvement structures have been placed on five miles of trout streams on the Lincoln. These included trash catchers, log dams, and wire gabions installed to create pools and improve the fish habitat in small streams. Five springs were developed as wildlife waters, several plots were fenced and seeded to provide additional turkey feed, and new roads were opened up into areas previously inaccessible to hunters.

The wildlife management portion of the Development Program for the Lincoln provides for accomplishment of the following work in the next 10 years:

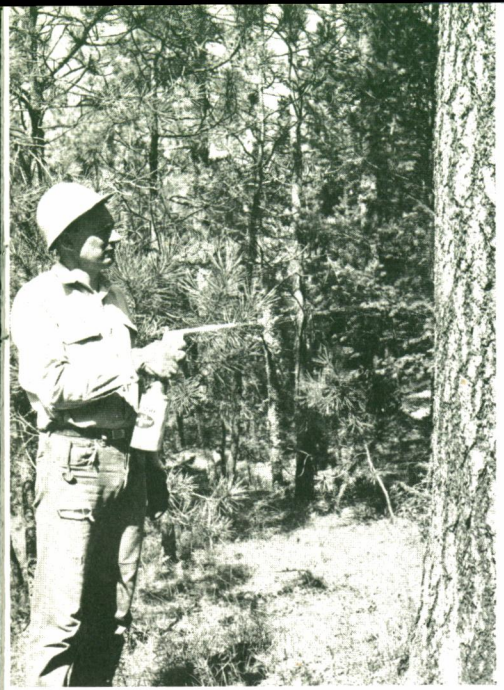
16,330	acres of food and cover planting.
3,140	acres of wildlife openings.
12	miles of stream improvement.
55	small water developments.

In addition, improved access for hunters to remote areas of the Forest will also be a high priority management objective.

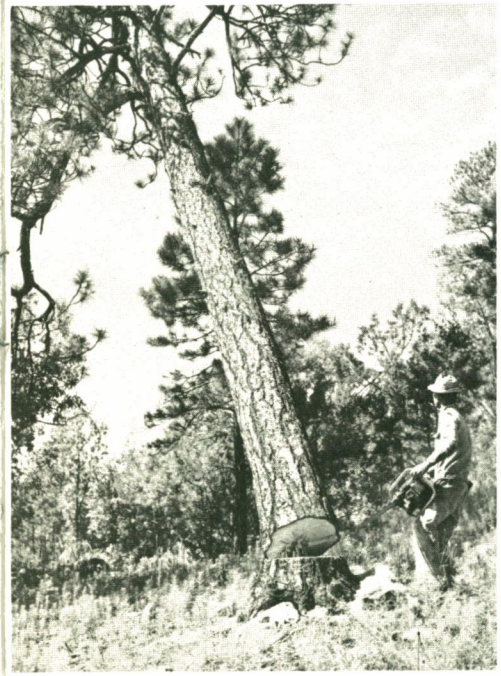


The fleet footed pronghorn antelope is not an easy target.

A wily turkey blends into the foliage.



Over-mature trees are marked for cutting.



This old ponderosa pine will help provide lumber for America's homes.

TIMBER

The Lincoln National Forest has some of the best commercial timber growing sites in New Mexico, but indiscriminate, unmanaged cutting in the late 1800's and early 1900's, before the National Forest was created, left many acres of land with only poor quality timber stands. The scars of wildfires like Allen Canyon, Circle Cross, and Pendleton are starting to heal, but many years will go by before the timber potential is once again realized.

Today, the Forest's annual allowable harvest is 16.3 million board feet of timber. Because of poor lumber markets, the actual cut averages about 5.5 million. Many of the 370,000 commercial timber acres are supporting young trees or pole stands which will need many years to mature. Only 14,000 acres have virgin timber stands, and they are in rather small and scattered blocks.

Direct seeding and revegetation by planting young trees on fire-damaged sites are high priority projects in the 10-year Development Program for the Lincoln. Over the past three years, seedlings have been set out on 800 acres and in 1963, more than 2,000 bushels of cones were collected for seed. This seed is used for both direct seeding on the timber lands and for growing transplants in nurseries. Foresters have had much greater success in planting when seeds or seedlings are planted in the same area from which the seed came.

Trees are living things and as such are subject to attacks by insects and diseases. In 1959, 638 acres of timber in Bonito Canyon were hand-sprayed for control of the roundheaded pine borer and 1,800 acres in the Capitan Mountains were sprayed that same year for control of a Douglas fir tussock moth infestation. In all Forest Service operations of this kind, special precautions are taken to assure protection of wildlife, fish, and domestic livestock from the spray chemicals.

At present, 10 timber operators employing 100 men are at work on the Lincoln, and there is a volume of 50 million board feet under contract. The Forest Service is working to develop the timber potential so that more jobs will be provided. Intensive management on a continuing basis will make the Lincoln an outstanding timber producing forest.

To achieve this objective, the following improvements will be needed in the next 10 years:

36,100 acres to be thinned to speed up growth of remaining trees.
42,000 acres to be seeded or planted with trees.
72,600 acres to be pruned for quality timber improvement.

Logs from the Lincoln National Forest being hauled to the mill.

Thinning dense stands gives remaining trees room to grow.

Herefords grazing in the Guadalupes.

RANGE

Grazing of domestic livestock is a valuable use of the Lincoln National Forest and is recognized as such in the Multiple Use-Sustained Yield Act of 1960. Good range management not only provides a sustained yield of forage for wildlife and livestock, but it keeps watersheds healthy, holds the soil in place, and can be coordinated with timber management and recreation use so that there is little conflict.

The Lincoln's forage crop is converted each year into 2,600,000 lbs. of beef and 350,000 lbs. of lamb by the 11,325 cattle and 5,250 sheep which graze under paid permits held by 200 local ranchers.

Maintaining this contribution of National Forest range to the local economy is part of the Forest Ranger's job. His goal is to harvest a sustained yield of forage year after year but without impairment of the basic resource — the soil.

Management plans are prepared for each grazing allotment by the District Forest Ranger and grazing permittee. These provide for location of new improvements, salt grounds, and herding practices. Users and Forest Officers are working toward improvement of the forage resource through more intensive management, including systems of deferred-rotation grazing. On these special systems, each pasture is grazed at a different season every year; this gives desirable plants much-needed rest during the critical growing season, restoring vigor, and increasing production. The net result is better range watersheds producing more wool, meat, and leather.

Last year, 18 miles of Forest boundary were fenced and 2,000 acres treated to improve forage production by control of juniper. However, in order to fully develop the range resource of the Lincoln to its maximum potential, the following projects will have to be carried out in the next 10 years:

466	miles of fence.
230	water developments for livestock production.
54,000	acres of reseeding to increase forage production.
17,800	acres of rodent control.

A special recreation folder map of the Lincoln National Forest, a Guadalupe Mountains Hunters' Map, an auto bumper strip, and a colorful car window decal are available at the Forest Supervisor's office in the Federal Building in Alamogordo, and at Ranger Stations in Capitan, Ruidoso, Cloudcroft, Mayhill, Sacramento, and Carlsbad. The recreation folder contains general information about the Lincoln and its map shows campgrounds, trails, fishing lakes and streams, and main roads. Drawn on a larger scale, the hunters' map includes drainages, water developments, drift fences and other prominent landmarks to help the sportsman find his way.

Watersheds on the Lincoln store water for the valleys below.

Bonito Lake near Ruidoso — part of Alamogordo's water supply.

Trash catchers form dams for erosion control.

WATER

Water produced on the Lincoln National Forest is of vital importance to Southeastern New Mexico. The high mountain watersheds of the Lincoln lie astride the divide between the Tularosa Basin and the Pecos River Valley. Many communities depend on water which falls on the Lincoln and percolates through subterranean channels to re-appear as springs in canyon bottoms or on the desert floor.

Communities like Alamogordo and the White Sands-Holloman Air Force Base complex depend on water stored in Bonito and Nogal Lakes. These reservoirs were built by the Southern Pacific Railroad to support their steam locomotives before the turn of the century. With the conversion to diesel electric power the water was no longer needed, and the railroad turned the water over to the cities and towns in the Tularosa Basin.

The estimated yield from the Lincoln is 110,000 acre feet of water per year. Many steps must be taken to maintain this production in a silt-free condition. During the past five years watershed restoration work was done on nearly 14,000 acres. This included gully plugging, terracing, contouring, and planting vegetation which will slow the runoff and cause the water to seep into the ground.

The Development Program for the Lincoln outlines projects to be undertaken in the next decade to better develop and maintain the Lincoln resources. The watershed management portion of the Program calls for treatment of 77,000 acres of damaged watershed lands. Rehabilitation work is planned in the Guadalupe Mountains, Monument Canyon, Sixteen Springs Canyon, Lewis Canyon, La Luz Drainage, and Eagle Creek.

SPECIAL USES

The Lincoln National Forest exists to serve the needs of the American people in every way possible. For example, some of these needs include sites for electronic communications, observatories, powerlines, and other uses generally of a public service nature.

At the present time, there are 260 special use permits in effect on the Lincoln covering such things as the Sac Peak Solar Observatory, White Sands Missile Range's Alamo Lookout Radar Tracking Facility, Sierra Blanca Winter Sports Area, organization camps, 217 miles of powerlines, and 205 oil and gas leases.

When an application for a special use permit is received, the Forest Service reviews the request with respect to its impact on other resources. If no conflict occurs, the special use is approved. However, if a conflict arises, the proposal must either be modified to remove the objections or be denied.

Sacramento Peak Solar Observatory on the Lincoln National Forest.

Bridge being constructed at Sacramento.

ROADS and TRAILS

Each year, thousands of recreationists travel two federal cross-country highways which traverse the Lincoln National Forest. Many of these people want to stop and picnic, camp, or sightsee in the high, cool forest which is such a pleasant contrast to the hot, dry plains. To accommodate this terrific impact and provide access to the many camp and picnic grounds, road and trail construction, reconstruction, and maintenance programs must keep pace with the demand.

There are 901 miles of roads and 315 miles of trails on the Lincoln's transportation system. State and County Highway Departments cooperate in maintaining 212 of these miles and the Forest Service is responsible for the other 688 miles. In 1963, the Forest Service constructed 1.1 miles of new road, reconstructed .3 mile of road, built a new 42-foot reenforced concrete bridge, and provided culverts for 5.1 miles of timber purchaser roads. Surveys and plans were completed for 19.5 miles of future roads.

A small amount of timber operator roads is also built each year on the Lincoln and added to the Forest road system. These roads are laid out by the Forest Service and constructed by the operator for log hauling. When the cutting has been completed, the Lincoln takes over the roads for the benefit of other uses of the Forest.

Currently, trails in the White Mountain Wild Area near Ruidoso are being restored, reconstructed, and maintained to give hikers horseback riders, and hunters easier access to this remoted, rugged, scenic country on the western slopes of Sierra Blanca.

In the next decade, the Lincoln's 5.4 million dollar road program provides for 311 miles of new or reconstructed roads and 22 miles of new or rebuilt trails. Provision has also been made for a new road that would make the spectacular Guadalupe Mountains near Carlsbad accessible for public use and enjoyment.

SUMMARY

The Lincoln National Forest is working for you. The preceding pages have provided you with a look at the current activities and plans for the coming years. Implementing these plans will mean jobs for many people in addition to the Lincoln's cash payments to counties in which the National Forest is located. These payments constitute 25 percent of all National Forest receipts and by law must be used for county schools and roads. The sale of National Forest timber, grazing permits, and the rental of land for special uses, provide most of these receipts.

Payments by the Lincoln for Fiscal Year 1963 amounted to $22,356.98 and were distributed on the basis of the number of acres of National Forest land in each county.

Each year, Americans are making increasing demands on the resources of their National Forests. With your continued understanding and support, the Lincoln National Forest can make even greater contributions to this area's economy than it has in the past.

Cloudcroft Ranger Station office.